

ART. XV. *De Aneurysmatibus Arteriarum Cerebri.* Auctor ARMIN. ALB.
AVO. STUMPPF; Saxo-Borussus. 4to. pp. 35. Berlin, 1836.
On Aneurism of the Cerebral Arteries. By A. A. A. STUMPPF.

Few diseases have attracted less attention from pathologists than the one which is the subject of this short dissertation. Although marked throughout by great obscurity in their pathognomic symptoms, and hence identified with difficulty, aneurismal swellings of the arteries of the brain are by no means of infrequent occurrence, and give rise not only to extreme pain and distress, but also, in consequence of the pressure they exert upon the brain itself or the origin of various nerves, often impede the free performance, or even cause a complete suspension of important functions. Every thing connected with them is deserving of an attentive study on the part of the physician.

The treatise of M. Stumpff, although imperfect in many particulars, presents, nevertheless, a very excellent account of the phenomena attendant upon the formation of aneurism within the cranial cavity; the circumstances under which they ordinarily take place, and the morbid appearances detected in the bodies of those who have suffered during life from this disease.

The author commences his remarks by the history of a fatal case of inter-cranial aneurism that fell under his own notice, which affords a very excellent delineation of some of the more striking symptoms to which the disease ordinarily gives rise, as well as of its most frequent termination.

An individual twenty-two years old, who had previously enjoyed apparent good health, with the exception of frequent attacks of pain in the head, especially after muscular exertion or taking stimulating drinks, in the use of which latter, however, he was not known to indulge to excess,—was on the 4th of September, 1835, suddenly seized, after being engaged in severe labour, with such intense vertigo and pain of the head as to be at once prostrated and, for a time, deprived of his reason. On coming to himself he complained of the most violent pulsating pain over the whole head, which deprived him of sleep and destroyed his appetite for food; his bowels were at the same time costive. On the eighth day of the attack he was received into the hospital. The pain of the head was still violent; the face and eyes were red; the patient was intolerant of light, and in consequence kept his eyelids closed, and lay with his head bent backwards and burrowed in the pillow. There was slight fever. The pains of the head exhibited a remittent character, but even in the interval of the exacerbations, the patient suffered severely, and he passed his nights without sleep and in the utmost distress. On the 12th of September an intermission of the pains took place for a day or two, when they again returned with increased violence. On the 15th a very severe paroxysm occurred and terminated in spasms. The flushing of the patient's face, and the state of his pulse evinced an excited condition of the vascular system, with determination of blood to the head. The case was treated by purgatives and antiphlogistic remedies, and on the 19th of September the pains of the head had nearly all ceased; the patient however still complained of pain of the limbs, which was removed by the warm bath. A gradual improvement was observed to take place from this time, and on the 24th of the month the patient was discharged from the hospital apparently well.

In a short time, however, the pains in the head returned, but with less violence. The patient experienced in his right eye a heavy, dull pain, especially when the eye was exposed to too bright a light; the ball of the eye was thrust forwards and almost completely deprived of motion; the pupil was fixed and dilated; the superior eyelid was relaxed and no longer was moveable at the will of the patient. The eyes exhibited but little redness, the pupils were perfectly

clear, and vision was but little disturbed. The left eye exhibited no marks of disease, with the exception of slight redness of the conjunctiva and increased sensibility to light. Being readmitted into the hospital, November 22nd, blisters were applied to the temples. In the evening no symptoms threatening apoplexy were observed; and the patient slept soundly until about midnight, when his respiration became suddenly stertorous and difficult, and he was roused from his slumbers by an attack of convulsions. His face was now pale and distorted by spasms; his eyes were fixed and staring, both pupils dilated and immoveable; the heat of the surface was diminished, and the pulse suppressed. A second attack of convulsions similar to those of epilepsy occurred within a short period, and affected the whole body; the urine and faeces were passed involuntarily. After a brief intermission the attack of convulsions was again repeated, and terminated in death. On examining the body by dissection, the cause of the sudden termination of life was found to be an extravasation of blood, extending over the anterior part and basis of the brain; occupying, especially, the fossæ Sylvii and the middle portion of the base of the skull, and causing a separation of the sulci between the central and anterior lobes of the cerebrum to the extent of from eight to ten lines. The extravasated blood was found to have proceeded from the rupture of an aneurismal sac situated at the angle formed by the union of the cerebral carotid and the artery of the fossæ Sylvii. The aneurism was about the size of a filbert nut and of a perfectly oval form. The diameter of its neck was about one line, this was united with and was formed of the proper coat of the artery, which was here tolerably smooth, both internally and externally, and somewhat thickened. The parietes of that part of the tumour which presented towards the base of the cranium and exerted compression upon the oculomotor nerves, were less smooth and pellucid than at its neck, and of a reddish colour, and pultaceous consistency. It was here that the rupture of the sac had taken place; it was from two to two and a half lines in extent, ragged and covered with a coagulum which adhered to the internal surface of the sac. The substance of the brain surrounding the aneurism, as well as that in contact with the extravasated blood, appeared softened, in the same manner as is generally observed in cases of apoplexy. The vessels of the brain were over distended with blood, and minute bloody points were presented on cutting into the medullary matter: the brain was, in other respects, healthy. The only morbid appearances detected in the chest were an earthy concretion in the left lung, and a partial change of the semi-lunar valves of the heart into cartilage and bone. The abdominal viscera presented no marks of disease.

In addition to the history of the foregoing case, the author presents a synopsis of the cases of aneurism of the cerebral vessels, recorded by Hodgson, in his *Treatise on the Diseases of the Arteries and Veins*; by Serres in the *Archives Générales de Médecine*, for 1826; by Jennings in the first volume of the *Transactions of the Provincial Medical and Surgical Association*; by Chevallier, in the *London Medical and Physical Journal* for 1828; by Blaire, in the second volume of the *Transactions of a Society for the Improvement of Medical and Surgical Knowledge*; by Nebel, in the second volume of the *Handbuch der Pathologischen Anatomie* for 1816; by Breschet, in his work on *Aneurisms*, and by other medical writers.

To these succeed some general pathological remarks upon the case, the history of which is given in the commencement of the *Treatise*; we have only space, however, for a condensed view of the author's remarks upon the causes, symptoms, and effects of cerebral aneurisms generally.

Among the most usual causes of aneurismal dilatation of the arteries of the brain, he includes all those circumstances which have a tendency to produce an active congestion of the vessels of the head; as, organic diseases of the heart, especially hypertrophy of the left ventricle; diseases of the large vessels, such

as an abnormal structure of their valves, or ossification of the parietes; certain occupations, particularly such as require active and prolonged muscular exertion, and intemperance in the use of intoxicating drinks. Among the more chronic causes, he signalizes inflammation of the coats of the cerebral vessels, and its consequences.

The symptoms indicative of the existence of an aneurism within the cranium are, during the lifetime of the patient, unquestionably obscure and uncertain—many even of the more prominent of them may be produced by other and very different affections of the brain, none of them taken separately can be considered strictly pathognomic; hence, it is only from a close attention to the history of the case, and by taking into account the concurrence and mode of occurrence of the symptoms, that any approach to a correct diagnosis can, we apprehend, be made. This difficulty is, however, in a therapeutical point of view, of less importance than in almost any other diseases, as the symptoms which occur, whether they be produced by aneurism within the cranium, or by any other cause, will indicate a plan of treatment proper in either case.

When the aneurism is of little extent it gives rise to a continued vertigo and pulsating pain of the head. These symptoms may be so constant and intolerable, that the patient is unable to move his head, without experiencing the utmost agony; is deprived of sleep at night, and is induced to burrow his head in his pillow, or to press it against some hard body in hopes of obtaining relief. To the above symptoms are added the sensation as if a foreign body were inclosed within the skull, which, upon the least inclination or movement of the patient's body, appears to be about to burst the head asunder. This distressing feeling is produced also, or augmented by whatever occasions an increased impetus of the blood to the brain, or impedes its free return from thence, as the abuse of intoxicating drinks, violent muscular exertion, &c.

When the aneurism has attained to its utmost size, the symptoms of oppression of the brain are greatly augmented; the face of the patient has a stupid look, expressive of mental dulness and indifference; he experiences an obtuse constrictive pain with a sense of weight of the head; he is compelled to rest the latter upon his hand; in the absence of intense pain he is silent, and indisposed to thought; his tongue is paralyzed, and his mind oppressed, stupid and indifferent, giving to him the appearance of one bereft of reason. The symptoms here described may indeed give place to those of furious mania.

The onset of maniacal symptoms is usually marked, however, by a considerable determination of blood to the brain, by which probably an aneurism in the brain may at the time be produced, or the one already existing may be suddenly increased in size or its sac ruptured.

Affections of different organs of the body are connected less with the size or extent of aneurisms of the cerebral arteries, as from the portion of the brain in which they are seated, and in consequence of which they exert compression upon particular nerves, and thus impede or destroy their functions. In the instances of aneurism within the cranium hitherto observed, the tumour was always observed to occur at the base of the brain, between the bony basin of the skull and the cerebrum, near the sella turcica; from which part many nerves are given off, some of which are of course liable to become compressed by the aneurism, and to have, in consequence, their functions impeded. In the case related by the author, compression of the oculomotor nerves by an aneurismal tumour, thus situated, gave rise to paralysis of the iris, ball of the eye, and superior eyelid. In other cases from the tumour being so situated as to compress either the optic nerve, or some branches of the trigeminal nerves, amaurosis or defective smell or taste were produced. Complete or partial paralysis of one or other side of the body may result from a difference in the situation of the aneurismal tumour.

Aneurism of the cerebral vessels, when of sufficient size, and so situated as

to press upon a considerable surface of the brain, may give rise consecutively to chronic inflammation of its substance or to that particular disorganization which has been denominated ramollissement.

The aneurism itself may terminate either by a spontaneous cure, the sac becoming obliterated and converted into a solid tumour of more or less magnitude, or from a rupture of the sac, an extravasation of blood may take place within the cranium or within the substance of the brain, and give rise to all the phenomena of apoplexy, or to paralysis of certain muscles; or in consequence of the irritation of the brain resulting from the aneurism, or indirectly produced by it, inflammation of that organ may take place, or a change, as we have remarked, may occur in its organization.

Aneurisms within the cranium are most commonly sooner or later destructive to life, or impair permanently the functions of certain organs. Of the cases of the disease which have been observed, one instance only is recorded, in which a natural cure took place and the patient's health was completely restored, while six are stated to have terminated in rupture of the sac and the production of apoplectic symptoms.

To the dissertation is appended an interesting table presenting a brief conspectus of the cases of aneurism of the arteries of the brain, described by different writers, together with the more important of the facts which have been noted in relation to them.

D. F. C.

ART. XVI. *Conspectus Morborum Auris Humanæ. Dissertatio Inauguralis Pathologico-Therapeutica.* Auctor JULIUS LOBETHAL. 8vo. pp. 91. Berlin. 1833.

A View of the Disease of the Human Ear. By JULIUS LOBETHAL.

With the different diseases to which the human ear is liable, we are as yet imperfectly acquainted. Of the true character of several of the morbid states of the internal portions of the organ, we are unable to judge during the life of the patient, and even after death an examination of the affected parts is attended with considerable difficulty. It is to these circumstances that we are in great measure to attribute the comparatively slight attention which many of the diseases of the internal ear have received. The pathology of the auditory organ is, nevertheless, a subject of very great importance, and demands a full and satisfactory investigation on the part of those who possess the requisite talents and opportunities.

The work before us, while it presents a very accurate summary of the existing facts in relation to the more prominent affections of the organ of hearing, in the collection of which, the author has exhibited great industry, adds nothing whatever to our previous amount of knowledge. As the production of a student it deserves, nevertheless, unqualified praise.

The first disease treated of is, of course, inflammation of the ear. The symptoms laid down by the author as diagnostic of this disease, are those peculiar to the more acute and aggravated cases of inflammation seated within the cavity of the tympanum. In the cases of ordinary occurrence many of the symptoms he describes are often wanting, while others occasionally present themselves, which he has neglected to enumerate.

"Otitis, he remarks, is indicated by an ardent, pulsating, tensive, and lancinating pain in the affected ear, with fever, for the most part intense; a full, hard and frequent pulse, cephalalgia and a sense of constriction in the head, inquietude, great anxiety and watchfulness; frequently delirium; cold extremities; fainting, and torpor of the limbs. There is a ringing in the ears with an obtuse or morbidly acute sense of hearing. Sometimes the fauces about the orifices of